

Practice A

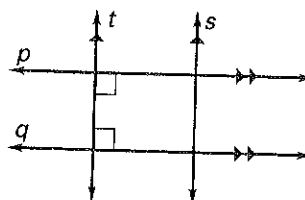
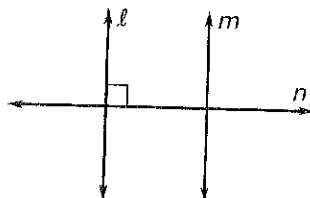
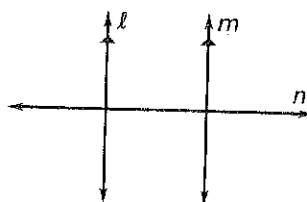
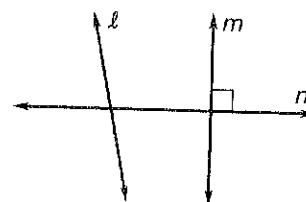
For use with pages 107–113

Match the key word with its definition.

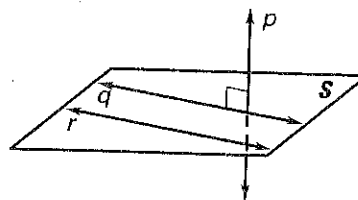
1. parallel lines
2. perpendicular lines
3. skew lines
4. parallel planes
5. line perpendicular to a plane
- A. two lines that do not lie in the same plane and do not intersect
- B. two planes that do not intersect
- C. two lines that lie in the same plane and do not intersect
- D. two lines that intersect to form a right angle
- E. a line that intersects a plane in a point, and that is perpendicular to every line in the plane that intersects it

Fill in the blank with \parallel or \perp to make the statement true.

6. Line p \perp line t .
7. Line p \perp line q .
8. Line t \perp line s .
9. Line t \perp line q .

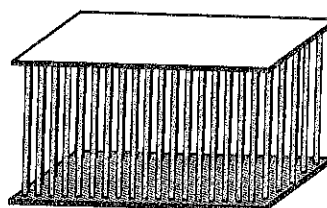
**Determine whether the lines are *parallel*, *perpendicular*, or *neither*.**10. ℓ and n 11. ℓ and m 12. ℓ and n **Use the diagram at the right.**

13. Name a pair of perpendicular lines.
14. Name a pair of lines that appear parallel.
15. Name a pair of skew lines.
16. Name a line perpendicular to plane S .
17. Suppose line ℓ lies in plane S and intersects line p . What line must be perpendicular to ℓ ?



The drawing depicts a cricket cage with a rectangular top and bottom and small wooden "bars" for sides. Describe any parts of the cage that suggest the geometric relationships.

18. A pair of parallel planes
19. A line perpendicular to a plane
20. A pair of parallel lines



Name _____

3.2 Extra Practice

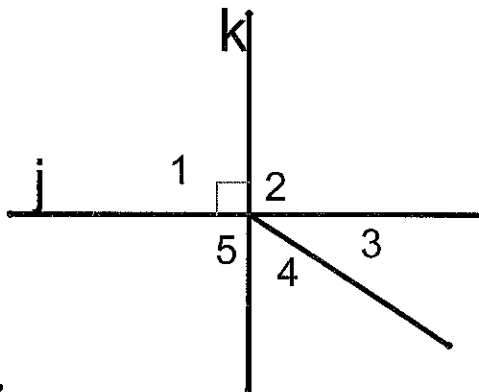
Use the box of 4 theorems to the right to justify the following statements.

Four theorems

- All right angles are congruent.
- If two lines are perpendicular, then they intersect to form four right angles.
- If two lines intersect to form adjacent congruent angles, then the lines are perpendicular.
- If two sides of adjacent acute angles are perpendicular, then the angles are complementary.

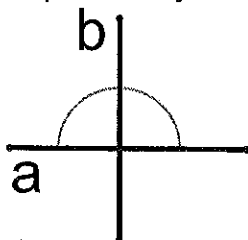
Use the picture to the right for #s 1-3. $j \perp k$

- _____ $\angle 2 \cong \angle 5$
- _____ $\angle 1$ is a right angle
- _____ $\angle 3$ and $\angle 4$ are complementary



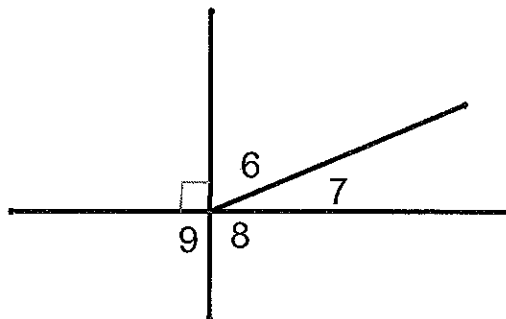
Use the picture to the right for #4.

- _____ $a \perp b$



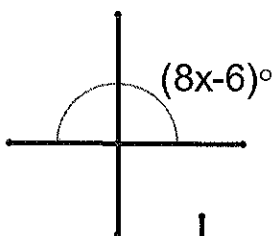
Use the picture to the right for #s 5 & 6.

- _____ $\angle 6$ and $\angle 7$ are complementary
- _____ $\angle 8 \cong \angle 9$

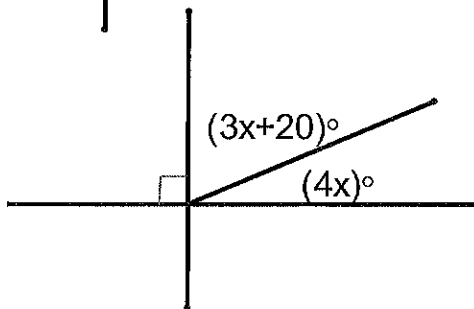


Solve for x.

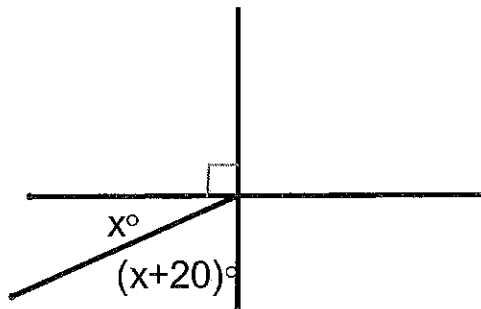
- $x =$ _____



- $x =$ _____



- $x =$ _____



Practice A

For use with pages 121-125

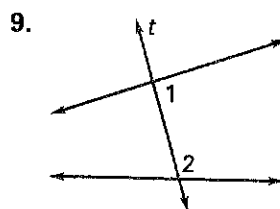
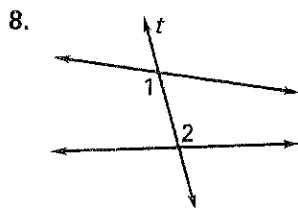
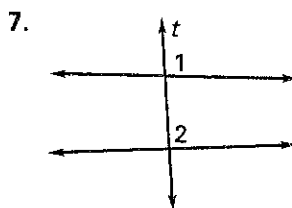
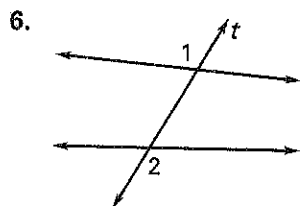
Match the key word with its definition.

- 1 transversal
- 2 corresponding angles
- 3 same-side interior angles
- 4 alternate exterior angles
- 5 alternate interior angles

- A. two angles that lie between the two lines on the same side of the transversal
- B. two angles that occupy corresponding positions
- C. two angles that lie between the two lines on the opposite sides of the transversal
- D. a line that intersects two or more coplanar lines at different points
- E. two angles that lie outside the two lines on the opposite sides of the transversal

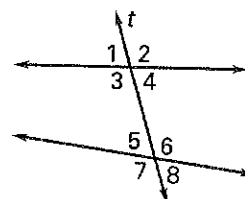
What type of angles?

Describe the relationship between $\angle 1$ and $\angle 2$.



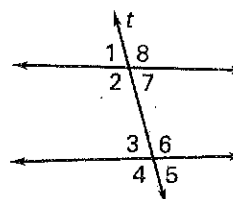
Use the diagram shown at the right to name a pair of angles that fits the description. There is more than one correct answer.

- | | |
|------------------------|------------------------|
| 10. corresponding | 11. alternate interior |
| 12. alternate exterior | 13. same-side interior |



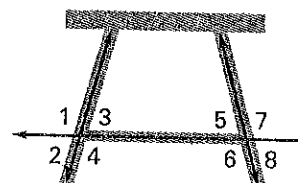
Use the diagram at the right to complete the statement using *corresponding*, *alternate interior*, *alternate exterior*, or *same-side interior*.

- | | |
|--|--|
| 14. $\angle 6$ and $\angle 8$ are <u> ? </u> angles. | 15. $\angle 1$ and $\angle 5$ are <u> ? </u> angles. |
| 16. $\angle 2$ and $\angle 6$ are <u> ? </u> angles. | 17. $\angle 4$ and $\angle 8$ are <u> ? </u> angles. |
| 18. $\angle 6$ and $\angle 7$ are <u> ? </u> angles. | 19. $\angle 1$ and $\angle 3$ are <u> ? </u> angles. |



A picnic table is shown in the sketch at the right. Describe the relationship between the angles.

- | | |
|-------------------------------|-------------------------------|
| 20. $\angle 3$ and $\angle 7$ | 21. $\angle 2$ and $\angle 7$ |
| 22. $\angle 4$ and $\angle 6$ | 23. $\angle 3$ and $\angle 6$ |

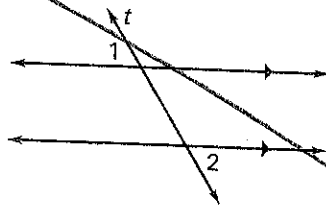


Practice A

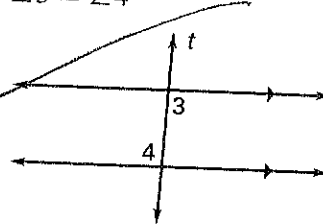
For use with pages 126-135

What postulate or theorem justifies the statement?

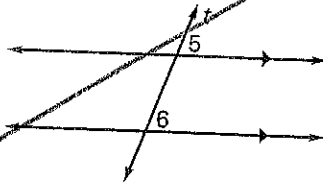
1. $\angle 1 \cong \angle 2$



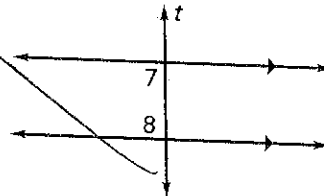
2. $\angle 3 \cong \angle 4$



3. $\angle 5 \cong \angle 6$

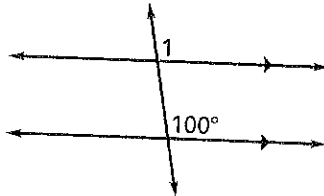


4. $m\angle 7 + m\angle 8 = 180^\circ$

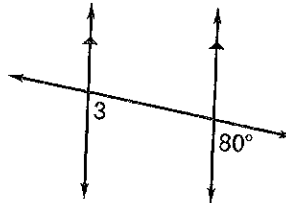


Find the measure of the numbered angle.

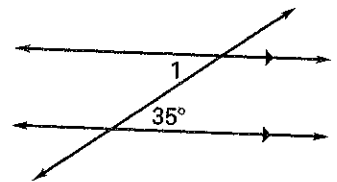
5.



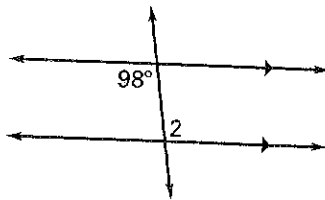
6.



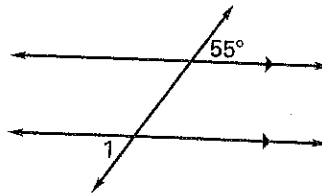
7.



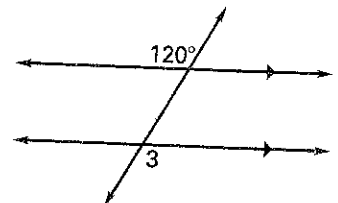
8.



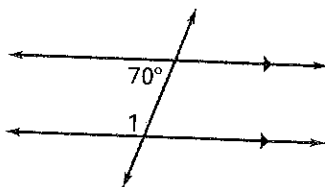
9.



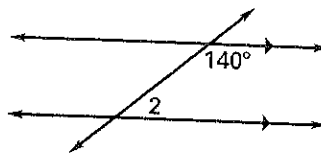
10.



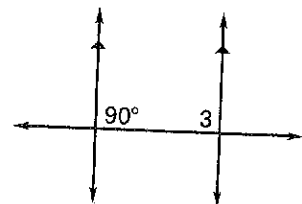
11.



12.



13.



A birdbath on a pedestal is shown in the sketch at the right. The top of the pedestal is parallel to its base.

14. Name a pair of congruent corresponding angles.
15. Name a pair of congruent alternate interior angles.
16. Name a pair of supplementary same-side interior angles.

